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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/890,447 | 10/19/2001 | Yoshikatsu Akiyama | PK9931 | 3040 |

22840 7590 09/22/2004

AMERSHAM BIOSCIENCES
PATENT DEPARTMENT
800 CENTENNIAL AVENUE
PISCATAWAY, NJ 08855

EXAMINER

HANLEY, SUSAN MARIE

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1651

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 09/890,447 | Applicant(s) AKIYAMA ET AL. | |
| | Examiner Susan Hanley | Art Unit 1651 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-4 and 12 is/are rejected.
- 7) ☒ Claim(s) 5, 7 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>7/30/01</u> . | 6) <input type="checkbox"/> Other: _____ |

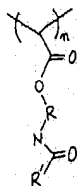
Continuation of Disposition of Claims: Claims pending in the application are 2-5,7,12,13,19-22, 24, 29, 36-39, 45-50, 61,62, 64,68, 75, 76, 81-83 and 88.

Continuation of Disposition of Claims: Claims withdrawn from consideration are 19-22,24,29,36-39,45-50,61,62,64,68,75,76,81-83 and 88.

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DETAILED ACTION*Election/Restrictions*

Applicant's election without traverse of Group I, claims 2-5, 7, 12 and 13, and a polymer backbone having the formula:



wherein R comprises a linear or branched aliphatic hydrocarbon having 1 to 8 carbons, in the reply filed on July 12, 2004 is acknowledged.

Claims 19-22, 24, 29, 36-39, 45-50, 61, 62, 64, 68, 75, 76, 81, 83 and 88 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on July 12, 2004.

Claims 1, 6, 8-11, 14-18, 23, 25-28, 30-35, 40-44, 51-60, 63, 65-67, 69-74, 77-80, 82, 84-87 and 89-98 have been cancelled.

Claims 2-5, 7, 12 and 13 are presented for examination.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2-4, 12 and 13 are rejected under 35 U.S.C. 102(a) as being clearly anticipated by Jansen et al. (EP 907,945).

Jansen et al. teach coating compositions comprising multi-valent carboxylic esters of compounds containing hydroxyalkylamide group and a hydroxy moiety in which the carboxylic ester is derived from an α , β -

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ethylenically unsaturated carboxylic compounds, as shown in the figure on p. 2. The disclosed structure meets the limitations of the instantly elected specie because it is a (meth)acryl compound having an aliphatic alkyl group, which meets the limitations of R in the instantly claimed compound, is disposed between the ester and amide groups. The amide group is further connected to an alkoxy functional group, thus meeting the requirements of claims 3 and 4. Jansen et al. teach that a representative monomer such as α -hydroxy-(N-ethyl-2-acryloxy) valeramide can be synthesized by reacting ethanol amine and valerolactone under a nitrogen atmosphere at 120 degrees C to yield the monomer which can then be polymerized. This disclosure meets the synthetic limitations of part (3) of claim 12.

Claims 2-4, 12 and 13 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Muller et al. (US 5,300,537).

Mullet et al. discloses a carboxamide group containing (meth)acrylic acid ester having the formula in the abstract. This structure meets the structure of the elected specie because it has the same (meth)acrylic backbone within the oxygen of the acrylate is connected to X which can be a divalent aliphatic hydrocarbon group of 1-6 carbons. This teaching of X meets the instant specie election for R in the elected polymer backbone. The amide group connected to X is further connected to R₂ which comprises an alkyl or alkenyl group of 1-4 carbons that is optionally substituted by a hydroxyl, amino or carboxyl group, which meet the functional group requirements of instant claims 3 and 4. The carboxamide group-containing (meth)acrylic acid esters can be prepared by the reaction of alkanol-amines with a carboxylic acid ester and (meth)acryloyl chloride. This disclosure meets the method of preparation of option (3) of instant claim 12.

Allowable Subject Matter

Claims 5, 7 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

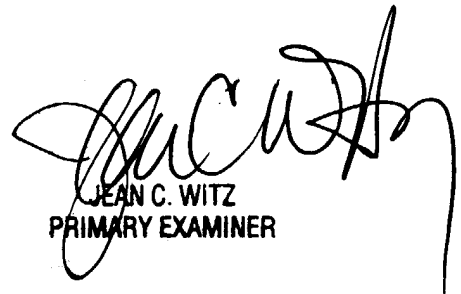
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan Hanley whose telephone number is 571-272-2508. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Wityshyn can be reached on 571-272-0926. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Susan Hanley
Examiner
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JEAN C. WITZ
PRIMARY EXAMINER